

Appl. No. 09/171,910

a marked up version has not been changed relative to the immediate prior version, except that marked up versions are not being supplied for any added claim or canceled claim.

31. Plastic-based composite product comprising a plastic mass in which particles are homogeneously embedded, which particles have tensile strength in a first particle direction, said product having a chosen principal product direction, wherein the particles comprise:

D1 small particles being elongated plates or fibres and having a random orientation and a length of 0.2-2 mm; and

large particles dominantly orientated such that their first particle direction is in said chosen principal product direction, said large particles having a length in the first particle direction of about 2-6 mm.

D2 32. Product as claimed in claim 31, wherein the particles are plate-shaped having a main plane, the first particle direction extending in said main plane.

Please cancel claim 33.

D3 34. Product as claimed in claim 31, wherein the particles are elongated.

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35. Product as claimed in claim 34,

wherein the large particles are fibres wherein the first particle direction is the longitudinal direction of each fibre.

36. (Amended) Product as claimed in claim 52,

wherein the particles include particles of wood material, wherein said wood material particles have a transverse dimension perpendicular to said first particle direction, the ratio between the length in the first particle direction and said transverse dimension amounting to a minimum of 4, wherein the wood particles are present in the plastic mass in a quantity of 40-80% by mass, and wherein the product complies with the following requirements relating to mechanical properties in

- bending strength in the first particle direction: at least 8 MPa**
- bending modulus in the first particle direction: at least 3 GPa**
- tensile strength in the first particle direction: at least 6 MPa**
- tensile stress modulus in first particle direction: at least 3 GPa**
- tensile strength transversely of first particle direction: at least 0.3 MPa**
- tensile stress modulus transversely of first particle direction: at least 1 GPa.**

37. (Amended) Product as claimed in claim 51,

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wherein the wood particles consist of a material selected from the group consisting of fir, spruce, birch and poplar.

38. Product as claimed in claim 36,

D3
cont including particles of non-wood material present in the plastic mass in a quantity of 3-25% by mass, wherein the particles include fibres of natural cellulose polymer.

✓
Please cancel claim 39.

40. Product as claimed in claim 36,

including particles of non-wood material present in the plastic mass in a quantity of 3-25% by mass, wherein the particles include glass fibres with a length of 4-5 mm and a diameter of 0.013 mm and a ratio of length to diameter in the range of 300-400.

Please cancel claim 41.

D4
42. (Amended) Product as claimed in claim 53,

wherein the polyolefine material is a material selected from the group consisting of polypropylene, polystyrene, polyethylene or polyacrylate.

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43. (Amended) Product as claimed in claim 31,

further comprising an additive with a desired influence on chosen properties of the product and selected from the group of additives consisting of the following classes:

- D5
- influencers of adhesion between particles with tensile strength and matrix polymer (class H),
 - influencers of the properties of the surface of the product, particularly in respect of coatings or adhesives for applying in sandwich structures (class O),
 - influencers of the pyrogenic properties (class P),
 - influencers of the particle durability (class D),
 - blowing means for obtaining a foamed structure (class B).

44. Product as claimed in claim 31,

comprising at least one colouring agent or pigment.

45. Product according to claim 31,

wherein the product forms a first plate-shaped layer, a skin layer being adhered to at least one of the sides of the plate-shaped layer.

46. Product as claimed in claim 31,

wherein the product is elongated and the chosen principal product direction is the longitudinal direction of the product.

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47. Product as claimed in claim 36, wherein the ratio lies in the range of 6-80.

48. Product as claimed in claim 36, wherein the wood particles are present in the plastic mass in a quantity of 50-70% by mass.

49. Product as claimed in claim 38, wherein the fibres of natural cellulose polymer are made from a material selected from the group consisting of flax, jute, hemp, sisal, coconut, bamboo and miscanthus.

50. Laminated product comprising a plurality of products according to claim 31, wherein the products are plate shaped and have main planes, wherein the plate-shaped products are adhered to one another.

✓
Please add the following new claims:

rule 26 ⁵³
~~51~~. (New) Product as claimed in claim 34, wherein the particles are made of wood material.

DLe ⁵³
~~52~~. (New) Product as claimed in claim 31, wherein the plastic mass is a thermoplastic polymer.

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⁵⁴
53. (New) Product as claimed in claim 52, wherein the polymer is a polyolefine.

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cont
⁵⁵
54. (New) Product as claimed in claim 31, wherein the particles consist of wood material.
